



## Adopt an Outcrop Program

### Introduction

In 2008 the park initiated a volunteer program to increase rock outcrop monitoring and protection. Highly committed volunteers provide an increased "uniformed" presence, and conducting rare plant monitoring and site protection activities at 21 rock outcrop sites within Shenandoah National Park. The program's goals are to help limit human trampling of rock outcrop sites, and provide monitoring data to track changes in rare plant population cover, health, and threats.

### Management Needs

The Shenandoah National Park rock outcrop areas are some of the largest in the region and contain myriad significant vegetation communities, and rare plant and animal populations. These rock outcrops often draw visitors to the views and sweeping vistas they afford. Intense use of these areas by hiking, climbing and camping enthusiasts has led to severe degradation of vegetation and soils at some outcrop sites, including impacts to rare species and communities.

The Adopt-an-Outcrop program (AOP) provides additional monitoring of rare plant populations at rock outcrops threatened by high visitor use and/or invasive species encroachment. We hope that the additional presence of AOP volunteers on rock outcrops will help deter unwanted visitor behaviors, and provide educational opportunities to teach park visitors about rock outcrop natural resources.



*The rare plant three-toothed cinquefoil (*Sibbaldia tridentata*) from Hawksbill Mountain.*

### Current Procedures

Volunteer monitors visit each rock outcrop monitoring site from two to six times a year. Rare plant monitoring is done twice a year using photopoints. These images will allow park staff to observe changes in the cover and health of rare plants over time. Additional data collection includes estimates of cover, vigor, and impacts at each observation point, and surveys for invasive plants within different distances from rare plant populations. When not engaged in rare plant monitoring AOP volunteers focus on visitor

education, barrier and sign repair, and trash removal.



*Adopt-an-Outcrop program volunteer works with an NPS employee to monitor a site at Little Stonyman Mountain.*

### Accomplishments

Accomplishments to date include producing a detailed volunteer monitoring manual and extensive site-specific monitoring materials. Field monitoring materials detail procedures for monitoring 160 observation points within the 21 monitoring sites. The program is still young and no notable changes have occurred at any of the monitoring sites. However, a database and photo management system have been developed and are in-use.

The program is actively managing 21 volunteers who collectively contributed a total of 1153 volunteer hours to the project from 2008-2009.



*Rare plant monitoring photo showing a rare plant, Rand's Goldenrod (*Solidago simplex* var. *randii*), from Franklin Cliffs.*